PEOPLE FIRST: THE RELATIONSHIP BETWEEN PERFORMANCE AND INTELLECTUAL CAPITAL IN NON-PROFIT ORGANIZATIONS

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Abstract

The recent (2011, 2015) ISTAT census (Italian institute of statistics) showed a significant increase in the number of paid workers in the third sector, showing a figure that contrasts with the performance of the labour market in the public and for-profit sectors since 2007.

This paper analyses the intellectual capital of non-profit organizations (henceforth, NPOs) and verifies the existence of a relationship between the three components of intellectual capital (human capital, organizational capital and relational capital) and two key areas of performance (perceived competitiveness and the ability to generate employment).

In order to increase the significance of findings of the non-profit sector, a questionnaire was administered to a representative sample of Italian NPOs that had more than five paid employees working in the seven key sectors of non-profit activities.

The results show the existence of significant relationships between the propensity to create networks and the two areas of performance highlighted. Other results also emerge, such as a large number of NPOs investing in training, in part due to a recognition of the strategic value of intellectual capital, and a greater level of perceived competitiveness that is capable of generating more employment.

Keywords: NPOs, performance, perceived competitiveness; intellectual capital, employment.

1. Theoretical framework and literature review

Many previous studies have had an objective of investigating the importance of innovation, based on the growth of knowledge as a driver for economic development (as summarised by Romer, 1986). From an organizational point of view, knowledge is defined as the most important resource for generating innovation (Nonaka and Takeuchi, 1995). In particular, Sveiby (1997) found that knowledge can bring added valued to an organization through the use of intangible assets, such as relations with users, development of workers' skills, brand positioning and the sharing of the mission.

These intangible assets constitute what is called Intellectual Capital (henceforth, IC), which is defined by Edvisson and Sullivan (1996) as knowledge that can be converted into value, and which may have a positive impact on an organization's present and future performance, as well as on corporate value (Bontis et al., 2000; Chen et al., 2005; Youndt and Schnell, 2004).
Many different approaches have attempted to define the IC, and most agree that IC is constructed from the following three components:

- Human Capital, that is, attitudes, skills and skills of people within the organization;
- Organizational capital: organizational culture, routines and practices, and intellectual propensity;
- Relationship capital, that is, relations with users and multi-stakeholder relationships.

(Bontis, 1996; Edvinsson and Malone, 1997; Marr, 2005; Roos et al., 1997; Stewart, 1997).

An understanding of these components is essential as "organizational value does not grow from each of these factors of Intellectual Capital, but only from the interaction between these" (Edvisson and Malone, 1997, pp. 145-146).

Most research into IC has been conducted on for-profit organizations with less attention given to the Intellectual Capital of NPO, despite the strong growth of NPOs over the last decade and their positioning as key actors in the creation of public policies, welfare and economic processes, (Salamon et al., 2003). Kong (2007 and 2008) suggests that IC can be seen as a conceptual framework for a more effective process of strategic management of NPOs, focusing the strategic focus on intangible assets.

IC has proved to be a determining factor of success for organizations with a production-oriented approach. This is particularly true in the case of NPOs where more weight is given to the wellbeing of users with respect to the financial performance of the organization itself.

Human Capital (henceforth, HC) consists of the attitudes, skills, experiences and skills of the members of an organization, or of an organizational system more generally (Bontis, 1999; Bontis et al., 2002). Human Resources (henceforth, HR) have been found to be fundamental for the generation of HC, as measured by both internal HR and the investment in training as a process for increasing skills and attracting qualified and competent external HR. Smaller organizations usually tend to operate by improving internal resources, with developments in HR possible through training, a focus on innovation and a consolidation of small and medium-sized organizations (Baldwin and Johnson, 1996). Small and medium-sized Italian NPOs are characterized by very limited resources available for training, which inhibits strategic choices in the development of the HC.

There is a greater complexity in HR management in NPOs when compared with for-profit companies, due to the need for named individuals to manage motivational dimension in balance with the organizational dimension, with respect to staff, volunteers, donors and other stakeholders (Abzug and Webb, 1999). This can be explained by the different approach taken by NPOs towards maximising the use of the external environment, which, whilst being able to better
permeate internal processes of an organization becomes a further element to be managed in balance with others. We have found that HR are the most important resources for an NPO (Boyle et al., 2007) so we have chosen to consider this dimension as a key consideration to better interpret the performances of the NPOs.

Organizational Capital (OC) comprises the infrastructure needed to support HC for the development of HR, and is composed of organizational culture, managerial philosophy, organisational processes and information systems. As IC requires a development of organizational culture to allow for the creation and accumulation of knowledge, we see organizational culture as an intersection between HC and OC.

The organizational culture of NPOs is strongly influenced by a vocation to social mission and by a key objective of meeting the needs of groups of citizens, which, when combined with the scarcity of resources available for investment, explains how the OC is increasingly being built using processes of service delivery than through the pursuit of strategic lines (Borzaga and Fazzi, 2000; Fazzi, 2001).

Thus, an almost exclusive focus on the efficiency and effectiveness of services, and less on knowledge, hinders the development of organizational culture, although NPOs have shown to be receptive to inputs from the external environment (Weick, 2001). Additionally, a limited amount of knowledge is possible through mere interpretation of information external to the organization (Kong, 2009). For the aforementioned reasons, we will investigate the OC in combination with the other two components of the IC.

Relational Capital (RC) comprises a set of relationships established with stakeholders. NPOs are ‘genetically’ multi-stakeholder organizations (Anheier, 2000), that is, by their very nature, they interact with the external environment and thus establish a relationship of osmosis with the environment that co-generates value. This assumption has sparked debate around NPOs in their role as organizations operating in the non-profit sector, and has enhanced the body of information surrounding the role that NPOs have in promoting the development of logic, collaborative economy and social innovation.

The relationships between NPOs and other agents, therefore, have become crucial in a context increasingly characterized by network-based production processes, including increasingly complex value chains between organizations belonging to different sectors and increasingly hybrid organizational models.

For these reasons we consider the RC of NPOs as a fundamental component of the IC and have analyzed the situation in this context in an effort to understand the ability of ONPs to dictate the processes used in a collaborative economy.

2. Research questions

In our research, we attempt to verify the existence of a relationship between the three components of IC and two key areas of performance of the NPOs, namely perceived
The two performance areas identified are of particular interest due to the increasing prominence of developments in the non-profit sector over the last decade. As can be seen from the data collected through the 2017Istat census, the non-profit sector showed a growth in all the key indicators. There were three major growth areas. Active units, that is, the number of NPOs present in Italy, grew by about 11.6%. The number of employees (paid human resources) increased by approximately 15.8%. The participation of volunteers grew by about 16%. These increases demonstrate quantitative growth, but do not allow us to say that there is a qualitative development of the organizations operating in this sector.

The importance of the framework provided by the census is even more noteworthy when we consider that alongside the growth in this sector, there has also been a decrease in indicators related to the public sector. We suggest that as the public sector shrinks, the non-profit sector increasingly assumes responsibility for in managing processes linked to the provision of services, though this is not explicitly demonstrated through analysis of collected data. Our research question, therefore, aims to consider the perceived competitiveness of the IC, and its ability to generate employment.

We define perceived competitiveness as the extent to which organizations judge their performance in optimizing cost-performance ratios, with respect to other types of organizations: public administration (henceforth, PA), for-profit companies and other NPOs.

To measure this variable, NPOs were asked to express their perception of competitiveness against a scale of values with three possible answers: a perception of greater competitiveness, a perception of lower competitiveness, and a perception of similar competitiveness. The ability to generate employment is linked to the propensity of these organizations to include in their processes new human resources (stage or internship), and to invest in them through the continuation of employment relationships.

To measure this variable, NPOs were asked to state whether or not they used internships and, if so, how often, during the previous three years, these translated into longer term employment.

By testing for significant relationships between these three variables and the three components of the IC, we gain an insight into the qualitative aspects of the growth of this sector and can thus identify the dimensions that allow these organizations to develop. This produces significant impacts regarding their internal evolution and their socio-economic context.

3. Design and research methods

Before examining the tools used and attempting to answer the above research questions, it is useful to describe the context of the Italian non-profit sector in order to clarify the choices made.
The Permanent Census of Non-profit Institutions (April 2017) and the previous census the ISTAT census of Industry, Services and Non-Profit Organizations of 2011 are one of the most widely used in the Italian management context. Actually, the data from 2011 has an open data warehouse where it is possible to work directly while for the most recent data the information is not fully available yet.

In December 2017, ISTAT published their first set of partial data, which outlined that there were 336,275 NPOs, 788,000 employees and 5,529,000 volunteers in Italy. This is an increase on the previous census conducted in 2011, with an increase of 11.6% more NPOs, 15.8% more employees and 16.2% more volunteers.

This increase is even more significant when noting that, due to the economic and financial crisis that hit Italy among other countries, there was a general decrease in the public and private for-profit sectors.

Despite the significant growth in the Italian non-profit sector, a large number of NPOs still have a small number of employees. Of the 336,275 NPOs in Italy, only 3.3% have between three and nine employees, although these 13,300 NPOs employ 83.6% of the total number of employees in the non-profit sector. Those who have employees are 55,196, accounting for 16.4% of active institutions (+32.2% compared to 2011). We have chosen to frame our research around NPOs that have more than five employees as we wanted to evaluate organizations that would give meaningful statistics. We have also decided to only consider NPOs operating in the most economically significant sectors: Environment; Social care; Culture, Sport and Recreation; Philanthropy and Volunteer Promotion; Education and Research; Health; Economic Development and Social Cohesion.

Our questionnaire included general questions about the NPOs, their size and quality of HR and financial resources, their perception of competitiveness and their willingness to participate in networks (formal and informal). To obtain estimates with a risk of error of less than 4%, the number of organizations to be included in the sample had to be greater than 600, and for this reason, our sample contains 612 NPOs.

The methodology used for this research involved the following steps:

1. Contextualize the relationship between IC (and its components) and dependent variables (performance areas).

The theoretical framework of reference (Kong and Benevene) identifies the IC and its three components (Human Capital, Structural or Organizational Capital, RC) as characteristic factors of the NPO. In our literature review, we identified the dimensions that needed to be investigated to detect the IC and its three components.

2. Definition of how to construct the questionnaire in line with the indications emerging from the literature review and the fundamental concepts highlighted in the ISTAT Census.
The composition of the questions in the questionnaire took into account the indications that emerged from the review of the literature and had the following structure:

**Registry section**
- Personal data of the NPOs; and
- NPO activities and economic resources.

**HC Section**
- Percentage of paid employees with a degree;
- Percentage of employees coming from an ad-hoc training course in the Third Sector;
- Consistency rate of the weighted training path for the organizational complexity rate;
- Consistency rate of the weighted professional path for organizational complexity rate; and
- Rate of participation of ONP staff in training courses.

**OC Section**
- Number of paid workers with longer-term employment;
- Percentage of volunteer staff with a degree; and
- Publication of social reporting documents.

**RC Section**
- Collaborative or competitive approach with other NPOs;
- Width of collaborative networks;
- Propensity to customer-user satisfaction surveys; and
- Rate of sharing strategies with other organizations.

**Performance section: perceived competitiveness**
- Perception of minor, greater or equal competitiveness (cost-performance ratio) compared to the PA;
- Perception of minor, greater or equal competitiveness (cost-performance ratio) compared to for-profit companies; and
- Perception of a minor, greater or equal competitiveness (cost-performance ratio) compared to others NPOs.

**Performance section: ability to generate employment**
- Presence and number of interns included in the organization in the last 3 years; and
- The number of interns who were given longer-term employment in the last 3 years.

3. Administration and subsequent collection of questionnaires

The questionnaire was then sent to all the NPOs that met the following criteria:

- At least 6 employees; and
- Operate in sectors previously specified.

The total number of questionnaires received was 612.

4. Transfer of answers on statistical software (SPSS) and data analysis

Once the database was completed, indices were created referring both to the dependent variables (perceived competitiveness and employability) and to the answers that were connected to the three components of the IC.

5. Data processing with multivariate analysis

A multivariate analysis was carried out, able to identify among the independent variables those that showed appreciable significance in explaining the trend of the dependent variables.

4. Results

Data was evaluated to assess the degree of collinearity between explanatory variables. To this end, all the correlation coefficients between the explanatory variables were analysed and we found that none of the variables are collinear.

We then proceeded to process the variables with a multivariate regression using the Backward Method, i.e. "backward deletion", starting with a model with all the variables and removing the non-significant variables one at a time. In this way we have verified that the significant variables (significance levels lower than 0.1) are:

For the "perceived competitiveness" performance area:

- Width of collaborative networks; and
- Rate of sharing strategies with other organizations.

For the "employability" performance area:

- Width of collaborative networks; and
- Collaborative or competitive approach with other NPOs.
In determining these results, the explanatory variables described above were assessed and matched to the three components of the IC. Control variables were then inserted in order to verify the non-dependency on exogenous variables to the model. The control variables considered are:

- Total number of workers of the NPO;
- Sector of activity of the NPO;
- Level of turnover of the NPO;
- Number of managers of managerial functions; and
- Type of legal form.

Therefore, variables that had been found to be significant continued to have significance even after the inclusion of the control variables.

We found that among the three components of the IC, the one that has a significant relationship with the areas of performance is the RC. All three significant variables belong to the RC section and show how relevant this component is for the NPOs. We say that there are three significant variables, because the variable of amplitude of collaborative networks is found to be significant when compared to both areas of performance.

NPOs perceive themselves as competitive when they increase their ability to share strategies and develop their collaborative networks with other organizations. This result is particularly relevant in the economic crisis and shows that in conditions of uncertainty and fragility of the socio-economic system, organizations perceive themselves as being more competitive if they do not work alone, and if they use opportunities whenever present to integrate risk-sharing strategies and to reinforce their position through an extensive network of collaborations.

In the same time, the NPOs that show the greatest capacity to generate jobs are those that, in addition to focusing on network integration, adopt a collaborative approach with other NPOs.

Therefore, Italian NGOs that are becoming increasingly collaborative tend to show the highest levels of performance and have a key role in the present socio-economic scenario because they are able to offer employment opportunities in a time of high unemployment.

While the first performance area pertains to a perceptual level, the second one expresses a more objective conclusion and affirms that NPOs that tend to collaborate are those that are most able to generate employment.

5. Implications

The results obtained led us to analyse in more detail the variables that we found to be significant, and in particular, the variable "Collaborative or competitive approach with other NPOs" which we found to be significant for both areas of performance.
The analysis with respect to the performance area "ability to generate employment" led to a secondary research question: do collaborative NPOs show a greater ability to generate employment as their willingness to integrate into networks increases?

To answer this question, we have divided the sample into two groups. The first group consists of NPOs that said that they followed a collaborative approach, and the second group is comprised of NPOs that said that they did not follow a collaborative approach. By reversing these variables, then, the following results emerge:

<table>
<thead>
<tr>
<th>Coefficients a</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>2,403</td>
<td>.268</td>
<td></td>
<td>8.979</td>
</tr>
<tr>
<td>Collaborative approach with other NPOs</td>
<td>-1,181</td>
<td>.377</td>
<td>-.346</td>
<td>-3,131</td>
</tr>
<tr>
<td>Breadth of collaborative networks</td>
<td>.441</td>
<td>.449</td>
<td>.067</td>
<td>.983</td>
</tr>
<tr>
<td>Interaction</td>
<td>1,351</td>
<td>.626</td>
<td>.264</td>
<td>2.158</td>
</tr>
</tbody>
</table>

a. Dependent Variable: log employability

Table 1: Regression coefficient grid, using IBM SPSS.

This allowed us to construct two lines, one related to NPOs that had a collaborative approach and one for non-collaborative NPOs (which we used as a dummy variable). We also set the ability to generate employment as a variable and the variable of "network amplitude collaborative" as an independent variable. To construct the graph, we formulated an equation that included both the dependent and dummy variables. The line that describes the trend is as follows:

\[ y = \alpha_0 + \alpha_1 \text{ Dummy} + \alpha_2 \text{ Network} + \alpha_3 (\text{ Dummy } \ast \text{ Network}) \]
Where:

\( y \) = ability to generate employment;

\( \text{Dummy} \) = collaborative approach (value 1) or non-collaborative approach (value 0); and

\( \text{Network} \) = breadth of collaborative networks.

We obtained two results from the equation:

If \( \text{Dummy} = 0 \), then

\[ y = \alpha_0 + \alpha_2 \text{Network} \]

If \( \text{Dummy} = 1 \), then

\[ y = (\alpha_0 + \alpha_1) + (\alpha_2 + \alpha_3) \text{Network} \]

The values returned by the regression are:

For the intercepts (\( \alpha \))

\[ \alpha_0 = 2.4 \]
\[ \alpha_1 = -1.2 \]

For angular coefficients (\( \beta \))

\[ \beta_1 = 0.44 \]
\[ \beta_2 = 1.35 \]

With these values, we drew the following graph (Figure 1):
Figure 1. NPOs Collaborative approach and NPOs non-collaborative approach.

This graphical representation allows us to observe how the two groups of NPOs have a very different ability to generate employment. The NPOs with a collaborative approach started from a lower level than the NPOs with a non-collaborative approach, which is expressed by the distance between $\alpha_0 e^{\alpha_0 + \alpha_1}$.

This can be explained in two ways. Firstly, collaborative NPOs pay a "cost" to the collaboration and, until they are able to extend their network by integrating with other organizations, their capacity to generate jobs will be lower than NPOs that do not take a collaborative approach. This result can also be interpreted as a function of time: in the short term, collaboration is costly, requires an integration of objectives and processes, and requires a medium-term vision to provide effective results in terms of employment. The advantage of such an approach is that longer-lasting NPOs achieve much more satisfactory results if they take a collaborative approach.
To conclude, we have demonstrated that NPOs that can develop RC, mature knowledge and practices are then enabled to collaborate and, thus, are able to achieve significant results in terms of employment.

Bibliography


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